

CLAIMS

1. A surgical access port for insertion into a body cavity, comprising:
an elongate tubular body extending along an axis between a proximal end and a
distal end; and
a tip disposed at the distal end of the tubular body for penetrating through a body
5 wall and into the body cavity,
wherein the tip moves from a first, penetrating position to a second, retaining
position when the body wall has been traversed.

2. The surgical access port of Claim 1, further comprising a seal housing
operably connected to the proximal end of the tubular body, the seal housing having an
access port providing an opening into the tubular body to allow passage of surgical
instruments.

3. The surgical access port of Claim 1, wherein the tip is sharp, pointed or
bladed.

4. The surgical access port of Claim 1, wherein the tip is substantially blunt
or has a conical surface.

5. The surgical access port of Claim 1, further comprising a retention
member for connecting the tubular body and the tip.

6. The surgical access port of Claim 1, wherein the tip repositions to one side of the tubular body in the second, retaining position.

7. The surgical access port of Claim 1, wherein the tip comprises at least two or more parts or petals that reposition to the side of the tubular body in the second, retaining position.

8. The surgical access port of Claim 1, wherein the tip repositions to one side of the tubular body when no axial load is present to hold it in axial alignment with the tubular body.

9. The surgical access port of Claim 6, wherein the repositioned tip remains in an off-axis condition until removal of the access port.

10. The surgical access port of Claim 6, wherein the repositioned tip remains in a substantially right-angled condition.

11. The surgical access port of Claim 6, wherein the tip automatically realigns with the axis of the tubular body as the access port is withdrawn from the body wall.

12. The surgical access port of Claim 1, wherein the tubular body is a thin walled tube sized and configured to allow passage of surgical instruments through the body wall an into the body cavity.

13. The surgical access port of Claim 1, wherein the tip comprises a conical, tapered or rounded shape to separate tissue layers and to provide a small fascial defect through which the tubular body can pass.

14. The surgical access port of Claim 1, wherein the tip is solid or hollow.

15. The surgical access port of Claim 14, wherein the hollow tip operates as a specimen bag by closing on a specimen during removal of the access port.

16. The surgical access port of Claim 1, wherein at least one of the tubular body and tip is formed from an optically clear material.

17. The surgical access port of Claim 5, wherein the retention member is formed from metal or plastic.

18. The surgical access port of Claim 5, wherein the retention member operably connects with a sidewall of the tubular body.

19. The surgical access port of Claim 5, wherein the retention member is biased to hold the tip in an off-axis position when there is no axial load.

20. The surgical access port of Claim 5, wherein the retention member is lightly held in axial alignment and subsequently deflected in the presence of an instrument within the tubular body.

21. The surgical access port of Claim 5, wherein the retention member is one of a spring, a spring wire, an offset hinge or a “living” hinge.

22. The surgical access port of Claim 5, wherein the retention member is formed from a substantially flat ribbon of metal.

23. The surgical access port of Claim 4, wherein the conical surface has at least one tissue engaging helical raised pattern on the surface.

24. The surgical access port of Claim 1, wherein the tip has an outer surface extending distally to a blunt point and includes a pair of side sections separated by an intermediate section, and wherein the side sections extend from the blunt point radially outwardly with progressive positions proximally along the axis.

25. The surgical access port of Claim 4, wherein the conical surface facilitates insertion of the access port with a reduced penetration force and minimizes tenting of the body wall.

26. The surgical access port of Claim 4, wherein the conical surface facilitates separation of different layers of the body wall and provides proper alignment of the tip between the layers.

27. The surgical access port of Claim 24, wherein the side sections include a distal portion in proximity to the blunt point and a proximal portion in proximity to the tubular body, and the distal portion of the side sections being twisted radially with respect to the proximal portion of the side sections.

28. The surgical access port of Claim 4, wherein the conical surface forms into said side sections extending proximally beyond said blunt point.

29. A method of inserting a surgical access port into a body cavity, comprising:

providing the surgical access port having an elongate tubular body extending along an axis between a proximal end and a distal end, and a tip operably connected at the distal end of the tubular body; and

inserting and advancing the tip through a body wall and into the body cavity, wherein the tip moves from a first, penetrating position to a second, retaining position when the body wall has been traversed.

30. The method of Claim 29, further comprising the step of making a small skin incision with the tip.

31. The method of Claim 29, wherein the tip repositions to one side of the tubular body in the second, retaining position.

32. The method of Claim 29, wherein the repositioned tip remains in an off-axis condition until removal of the access port.

33. The method of Claim 32, wherein the repositioned tip remains in a substantially right-angled condition.

34. The method of Claim 29, further comprising removing the access port from the body cavity.

35. The method of Claim 32, wherein the tip automatically realigns with the axis of the tubular body as the access port is withdrawn from the body wall.